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## Behavior Change Communication through the A-B-C Chain in Antiretroviral Therapy on People with HIV and AIDS in Makassar City

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### Abstract

Antiretroviral therapy (ARV) is not easy; it takes self-awareness and a strong commitment because this therapy must be followed for life and act on time. This study aimed to analyze the behavior change communication through the A-B-C chain in antiretroviral therapy (ART) to people with HIV and AIDS in Makassar. This study used qualitative methods case study approach. Key informant that people with HIV/AIDS on condition ever undergo antiretroviral therapy, aged 20-45 years. CST supporter informant that doctors, counselors and medical records clerk. Methods of data collection is done by in-depth interviews, focus group discussions, and observations. The results showed the provision of information on ARV therapy by health workers has become an antecedent that sparked the informant started ARV therapy, but not maximized in the maintenance behavior. This is due to the process of providing information that is not sustainable. Expected behavior changes that maintain the sustainability of ARV therapy action and the correct action to take medication that has not been formed. Still found the informant acted not timely to take medication, missed doses of ARVs and broke up ARV therapy. Consequences become one of the events that affect the expected behavior changes. consequent in the form of social support, positive perception of the benefits of antiretroviral therapy and the stigma of being consequent strengthening expected behavior change.

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Social support from family, peers, health workers and NGOs reinforce the behavior, and the condition begins with openness of people with HIV/AIDS. A positive perception of the benefits of ARV therapy adds confidence importance of ARV therapy. Stigma triggered people with HIV/AIDS fight for their rights to obtain public support. Expected to health workers, especially doctors CST counselors and HIV and AIDS in order to provide more intensive counseling and routine, giving exhaustive information via SMS or booklets need to be considered and expected to keep the focus group discussion (FGD) health centers. Informants are expected to continue to use the alarm or have a supervisor to take medication and can open related to family status, especially couples.

**Keywords:** Behavior change; Communication; ARV therapy.

## **1. Introduction**

Two thirds of people with advanced HIV infection do not get antiretroviral therapy (ARV). Currently, 717,000 people with advanced HIV infection receiving ARV therapy. But these figures represent only 39% of those who need ARV therapy. It is estimated that about three-quarters of adults living with HIV have not achieved viral suppression as a result of the un-maximal behavior of people living with HIV at any stage of treatment therapies [1]. According to [2], health behaviors shaped by events and reactions A-B-C (Antecedent-Behavior-Consequences) in the social environment and the physical environment. Antecedents are events that trigger a person behave. Consequent can reinforce or inhibit the survival of execution behavior. Communication strategies can lead populations better direction, using antecedent and consequent aims to change and treatment correct practices. Communication in the provision of appropriate information on ARV therapy when counseling, giving confidence that ARV therapy will help in living a better life. Moreover, giving confidence ARV therapy will make people living with HIV live a longer life with a decrease in CD4 cell counts. Education and counseling interventions have efficiency in improving behavior and adherence to ARV therapy can be applied in most clinical settings [3]. ARV therapy, there are reactions consequent of physical and social environments that follow the behavior of people living with HIV. Consequences can strengthen or even inhibit behavior to keep people living with HIV antiretroviral therapy. Research conducted in Gujarat in 2013 showed that positive social support from family members, doctors and counselors can reinforce the behavior of people living with HIV undergoing antiretroviral therapy. Studies in Vietnam in 2013, also showed that the increase adherence ARV therapy requires the support of a counselor or a doctor's intervention, the involvement of relatives, and self-management training programs [4].

The qualitative research conducted in Tanzania in 2010 and Thailand in 2011 showed that the factor derived from the individual that is the lack of understanding of antiretroviral therapy (ARV) and knowledge about AIDS is a factor that weakens the people with HIV/AIDS in antiretroviral therapy [5]. Research in Gujarat in 2013, South India and Laos in 2012 concluded that the side effects of antiretroviral drugs became one of the factors that affect people living with HIV to remain in therapy [6]. In Indonesia, some studies conducted in large cities found that the consequences that hamper consistency ARV therapy in general is the lack of understanding of ARV therapy instruction, beliefs, attitudes and personalities, interactions with healthcare professionals, anxiety, social isolation and stigma or family, effects Drug side, and the low level of knowledge about preventive and

curative HIV infection and AIDS [7-10].

Data obtained from Makassar City Health Office in 2014, where from 4315 who entered treatment, or tested positive for HIV and AIDS, are eligible for ARV therapy were 2,929 (67.8%). The amount of which is still undergoing therapy today is 1,117 (54.8%) less than the standard scope ARVs. It is known that as many as 333 people living with HIV die then there is the self-reported as many as 78 people stop therapy and follow-up loss of 222 people. Results of an initial interview with one of the observers of people living with HIV/AIDS who joined the NGOs in Makassar said that what happens on the field that caused people with HIV/AIDS consequent deviant behavior such as dropping out of ARV therapy is the lack of knowledge or understanding of the relevant series of ARV therapy as a result of less counseling process. Based on research data and the initial interview, of course, researchers realized that one-on-one important process in making a positive change in behavior towards people living with HIV is by analyzing antecedents and consequent in ARV therapy. Therefore, researchers interested in analyzing the behavior change communication through the ABC chain ARV therapy in people living with HIV in Makassar.

## 2. Materials and Methods

This study used a qualitative design with case study approach. Data collection techniques are in-depth interviews, focus group discussions and observation. Data analysis techniques are thematic analysis method. Informants consisted of people with HIV/AIDS, doctors CST HIV and AIDS, HIV and AIDS counselors, and personnel records.

## 3. Research Results

### 3.1 Giving antecedents Information on ARV therapy

Based on interviews with five people supporting informant found that in general they never give information about antiretroviral therapy to people living with HIV. Provision of information about ARV therapy aimed at changing the behavior of people living with HIV in the positive direction was made during the initial counseling, routine every month when people living with HIV taking the drug and during the FGD. But it is different with the results of observations conducted on the drug-making process; the researchers observed that the drug-making process is not all health workers provide information on ARV therapy. Provision of information on a regular basis every month just done at a clinic to have a group discussion forum. This forum was established by peer support groups."... *When the initial counseling and we also have regular meetings. If there are new patients, counseling after the test result is positive for us counseling and more about ARV therapy. Information on ARV therapy should be informed in counseling before they take a stand for therapy. Besides our existing FGD like a monthly meeting, there we always provide information ...* "

(NHD, 53 Years)

In general, there were 15 of 20 informants stated the information obtained to give effect to the informant to act initiating therapy. There is also an informant who claimed the provision of information only give

encouragement to think and intend to start ARV therapy.

*"... Information has an important role for me to therapy. So know the status in 2008 when it was once given a consultation, I immediately took the initiative to therapy ... "*

(SAI, 32 Years)

### **3.2 Informant's Knowledge of ARV therapy**

Knowledge informant assessed based on the responses given regarding the concept of ARV therapy. Conceptually, the knowledge of the informant about the benefits of antiretroviral therapy ARV therapy, side effects of ARV therapy, and adherence to ARV therapy. *"... The ARV therapy to suppress replication of the virus in the body so it is expected to lower ARV therapy and viral load high CD4, prolong life, improve quality of life, both in terms of health, social and economic. The effect everyone differently and it must obey a lifetime ... "*

(LKM, 34 Years)

### **3.3 Informants action in Undergo the ARV Therapy**

Measures old informant based ARV therapy in this study consists of informants who never stops ARV therapy, the informant who never stops then return to the therapy and informants who have dropped out.

*"... During the 7 years I never stopped therapy ..."*

(RAS, 37 Years)

In this study, informants generally always on time to take medicine for ARV therapy. There is also an informant who admitted that taking medication often spent 5 minutes to 12 hours or skipped doses in a day. *"...I Forgetful, I always forget, I was never on time, usually over a half hour to 1 hour ..."*

(MSF, 34 Years)

### **Consequent : Stigma**

The stigma that comes from themselves, their families and the general public does not become an obstacle to the sustainability of ARV therapy for most informants. Of the 20 informants only one informant who stated that stigma is a barrier to ARV therapy. This finding is consistent between the results of in-depth interviews with a focus group results that have been done. *"... It came from a family stigma finally I committed, I want to show that in terms of my social contacts will not pass, with ARV therapy I would just like you ..."*

(LKM, 34 Years)

### *Consequent: Perception on ARV Therapy Effects*

Findings from focus group discussions and in-depth interviews concluded that most of the fifteen (15) of the twenty (20) informants stated that the side effects of antiretroviral regimens have ever experienced not give effect to the breaking action ARV therapy. Side effects of ARV regimen only a hindrance to an informant. Another informant stated ARV side effects caused only momentary stop therapy.

*"... Had to stop therapy because the effect is a rash so stopped again, the second time I finally dressing regimen Balance and until now has never stopped ..."*

(FZ, 33 Years)

### *Consequent: Perception on benefits of antiretroviral therapy.*

Each informant perceptions of the benefits of antiretroviral therapy depends on the experience in therapy. Based on the results of in-depth interviews found that there are informants perceived that ARV therapy is mediocre. Of the twenty (20) there are two (2) informants who think that ARV therapy does not provide significant change to the health condition of informants. On the other hand through the process of in-depth interviews and focus group discussions, eighteen (18) informants have a positive perception that antiretroviral therapy be beneficial.

*"... The benefits in terms of health are very significant changes, CD4 initially 6 and now for nine years consumption has been 750, from an economic point of first I could not move could eventually, socially I can show to the people that I was HIV when I ARV a change ... "*

(LKM, 34 Years)

### *Consequent: Social Support*

The support obtained in general from all sources of social support is to provide emotional support in the form of encouragement to keep the spirit, information advisory reminded to take medication schedule and information in the form of opinions or facts relevant to ARV therapy. Another form of support is the support material obtained informant / instrumental form of the provision of antiretroviral drugs by health workers.

*"... The first of the wife's support, encourage each other, so we always remind me remind him and he also reminded me time to take medication, now children are also reminded us, most health workers providing medication alone ..."*

(ALS, 37 Years)

## **4. Discussion**

The process of providing information on health care workers have become antecedents that trigger people with HIV/AIDS ARV therapy, but not optimally in strengthening the maintenance of the correct action in ARV therapy. It takes the cooperation of the health services, the community, especially NGOs concerned people living with HIV, and people living with HIV themselves so that the process of providing information to function optimally.

Good cooperation between health professionals with patients as well as communication and constructive atmosphere that treatment will help patients to meet the ARV therapy. The role of health promotion in the initial counseling determining the sustainability action of people with HIV/AIDS in antiretroviral therapy. Before starting the therapy, the patient must understand the ARV therapy program and their consequences. The process of providing information, counseling and support compliance should be conducted by officers counselor through the provision of information, individual counseling, and look for practical problem solving and create a treatment plan [11].

Accessibility of information is uneven, there are people living with HIV are continuously exposed to information and did not rule out the possibility that people living with HIV are not at all well informed and exposed properly. Information obtained only at the initial counseling before undergoing antiretroviral therapy. Not an obstacle at a time when the initial counseling, counseling people living with HIV understand the whole matter and form self-awareness about ARV therapy. Otherwise, sustainable information needed to continue to provide knowledge and increase self-awareness of people with HIV/AIDS that ARV therapy is best to maintain health. It takes communication model more economical and effective way to overcome the limitations of the communication model for this. Informant knowledge about antiretroviral therapy in this study includes knowledge about the benefits of antiretroviral therapy, side effects and adherence to ARV regimens of antiretroviral therapy. Knowledge of antiretroviral therapy adherence includes knowledge of patients in taking medication properly about the dosage, frequency and time. Good knowledge level is expected to be one of the driving factors in complying with treatment schedules, with a good level of knowledge would avoid the risk of treatment failure and seeking the best possible therapeutic success. One study of factors that influence adherence to conclude that knowledge of antiretroviral therapy is the most powerful factor in influencing adherence ARV therapy [8].

The level of knowledge of the informant will be better if the concerned active in obtaining information. Informants who actively seek information via internet sites, actively participated in the activities organized by NGOs such as training, FGD, and seminars about HIV and AIDS including antiretroviral therapy, and active reading books have a much better knowledge compared to only rely on one source of information only. People with HIV/AIDS action ideal for people living with HIV undergoing antiretroviral therapy are undergoing ARV therapy on an ongoing basis without ever dropping out or missed dose and take the medicine schedule. High discipline is the key to people living with HIV in maintaining ideal action. Discipline is formed because of the strong sense of self in order to achieve the success of antiretroviral therapy. Self-awareness owned inspire confidence that the success of antiretroviral therapy will not be achieved without disciplinary action to take medication. On the other hand, there are people living with HIV that have no action in sufficient frequency and time. This is seen by the people living with HIV who had never stopped antiretroviral therapy has even dropped out of antiretroviral therapy. In this study, the action is not affected by the level of knowledge people with

HIV/AIDS. Informant, who has even claimed to break up ARV therapy before tested positive for HIV and AIDS, had joined as a social support group administrator who used to play a role in providing information support to friends people with HIV/AIDS. This is in line with research conducted by Galistiani that knowledge is expressed not significant factors proving the link between these factors to treatment adherence [12].

Be aware that ARV therapy is not only limited to taking ARV drugs continuously, but the discipline of the time is one indicator of compliance that must be met. It is important to strive to always take medications at the correct hour. In the national guidelines antiretroviral therapy by the MOH stated that the expected ARV adherence is 100% or highly active antiretroviral therapy (HAART), which means that all combinations of drugs should be taken without any proper dose is missed, the appropriate time in the right way.. PLHIV act in this study, in general, never too late to take medicine based on the schedule each therapy. Such actions pose a risk in less care action to rules in therapy that can lead to their negligence or pass the time forgetting to take medication. Broadly speaking, the authors analyzed that the informant has been no action, but not in a form that is not in accordance with the expected frequency and the time it should be. The role of information not only serves as an antecedent but rather serves as consequent which can increase knowledge and self-awareness to the maintenance actions ARV therapy is considered very important.

Consequent arising after people with HIV/AIDS regard ARV therapy becomes important things that influence behavior change. Consequent the ARV therapy that frequently arise originating from ARV side effects, the stigma, the benefits of ARV therapy and social support. During the side effects of the drug can still be overcome, not a barrier to remain in therapy. Consequently in the form of stigma is not an issue that causes the informant broke ARV therapy. Stigma become consequent that reinforce the behavior. The tendency of people living with HIV in this study to avoid the stigma of the more diligent and disciplined ARV therapy. They believe that a healthy physical condition will be dismissed stigma in the community. Stigma still have a negative effect that is related to the withdrawal of specific social environment. Anxiety PLHIV to stigma make the decision to close themselves to the status of being a solution to overcome them. Lack of socialization causes people living with HIV will not know clearly that occurs, whether the stigmatized people living with HIV or not. In line with research in Bangladesh concluded that affect people living with HIV status as social relationships and emotional state of people living with HIV, the majority of respondents describe the Quality of Life score low in social relations. Social aspects of people living with HIV causes them to limit the interaction with other people; do not get social support from family and hide their status from others [13].

Consequent in the form of perception of the benefits of antiretroviral therapy influences the ideal acts during therapy. Based on research conducted by [14] in Malang with qualitative research methods stated that the quality of life of people living with HIV antiretroviral therapy in the physical aspects are good because they realize the importance of maintaining physical health as people living with HIV by taking antiretroviral drugs on time.

Good experience with regard to the perceived benefits of antiretroviral therapy soon after therapy, make people living with HIV positive perception as meaning that ARV therapy makes people living with HIV increasingly powerless. Positive perceptions held increasingly encourage people living with HIV sustain and maintain

therapeutic action obedient. This is due to people living with HIV believe that behavior undertaken to provide benefits in life. In line with research conducted by [15] conducted in the city of Semarang, Martoni [8] conducted at Hospital Dr. M. Djamil Padang and Tuwohingide [16] in Manado stated that the patient's perception of the benefits of ARV drug therapy makes people living with HIV to be obedient in doing the treatment.

Based on the analysis of the author, received social support people with HIV/AIDS influential in improving the discipline to take medication and make people living with HIV can enjoy the antiretroviral therapy undertaken. Support information such as a regular reminder to take medicine, remind and support a healthy lifestyle, as well as the sharing of information related to the bad experiences of people living with HIV who do not regularly drink ARV provide motivation for people living with HIV continues to maintain his behavior in therapy [17]. Results of people living with HIV at the health center new Jumpondang in 2012 showed that people living with HIV who have family support have enough good quality of life, is inversely proportional to people living with HIV who receive less support [18]. Governments, NGOs, peer support, family and all the people living with HIV is obliged contribute in order to safeguard the rights of PLHIV to obtain good health care and optimal, particularly ARV services because a healthy life is a part of human rights itself [19].

## **5. Conclusions and Suggestions**

Based on the research results through behavior change communication in the A-B-C chain ARV therapy in people living with HIV in Makassar, it can be deduced that the provision of information on ARV therapy by health workers has become an antecedent that sparked the informant started ARV therapy, but not maximized in the maintenance behavior. This is due to the process of providing information that is not sustainable. Expected behavior changes that maintain the sustainability of ARV therapy action and the correct action to take medication that has not been formed. Still found the informant acted not timely to take medication, missed doses of ARVs and broke up ARV therapy. Consequent become one of the events that affect the expected behavior changes. Consequent in the form of social support, positive perception of the benefits of antiretroviral therapy and the stigma of being consequent strengthening expected behavior change. Social support from family, peers, health workers and NGOs reinforce the behavior, the condition begins with openness people with HIV/AIDS. A positive perception of the benefits of ARV therapy adds confidence importance of ARV therapy. Stigma triggered people with HIV/AIDS fight for their rights to obtain public support. Expected to health workers, especially doctors CST counselors and HIV and AIDS in order to provide more intensive counseling and routine, giving exhaustive information via SMS or booklets need to be considered and expected to keep the FGD health centers. Informants are expected to continue to use the alarm or have a supervisor to take medication and can open related to family status, especially couples.

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